

Product Name: GCX-4M-1, GCX-4M20-1, GCX-4M50-1, GCX-4M70-1

Revision Date: 17-Dec-2018
Issuing Date: 12-Oct-2018
Revision Number: 1.1
Safety data sheet number: GCX-4M-1

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name GCX-4M-1, GCX-4M20-1, GCX-4M50-1, GCX-4M70-1
Product Form Mixture
Safety data sheet number GCX-4M-1

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses Water based ink for inkjet printing machine
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

Brother Industries, Ltd.
15-1 Naeshiro-cho, Mizuho-ku, Nagoya 467-8561, Japan
Telephone (for information): +81-52-824-2735

Importer

(USA)
Brother International Corporation
200 Crossing Boulevard, Bridgewater, NJ 08807, USA
Telephone (for information): +1-877-276-8437
(Europe)
Brother Internationale Industriemaschinen GmbH
Dusseldorfer Str. 7-9, D-46446, Emmerich, am Rhein, Germany
Telephone (for information): +49-2-822-6090
(Australia)
Brother International (Aust.) Pty. Ltd. ACN 001 393 835
Level 3, Building A, 11 Talavera Road, Macquarie Park, NSW 2113, Australia
Telephone (for information): +61-2-9887-4344
(New Zealand)
BROTHER INTERNATIONAL (NZ) LTD.
27 Matarawa Place, Tauriko Business Estate, Tauriko, Tauranga, New Zealand
Telephone (for information): +64-7-543-5600
(Singapore)
BROTHER INTERNATIONAL SINGAPORE PTE. LTD.
10 Eunos Road 8, #14-01/02 Singapore Post Centre, Singapore 408600, Singapore
Telephone (for information): +65-6538-0311
(Asia)
BROTHER MACHINERY ASIA LTD.
Unit 1207-11, 12/F, 9 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Telephone (for information): +852-2777-0010

For further information, please contact

E-mail address sds.info@brother.co.jp

1.4. Emergency telephone number

Emergency Telephone CHEMTREC +1-703-527-3887 (International)
CHEMTREC +61-290372994 (Australia)

Product Name: GCX-4M-1, GCX-4M20-1, GCX-4M50-1, GCX-4M70-1

Revision Date: 17-Dec-2018
 Issuing Date: 12-Oct-2018
 Revision Number: 1.1
 Safety data sheet number: GCX-4M-1

Antipoison Center: ORFILA +33-1-45-425-959 (for France only)

Section 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label elements

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

EUH208 - Contains 1,2-Benzisothiazolin-3-one May produce an allergic reaction.

EUH210 - Safety data sheet available on request

2.3. Other hazards

No information available

Section 3: Composition/information on ingredients

3.2 Mixtures

Chemical name	CAS No	EC No	EC Index No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Glycerol	56-81-5	200-289-5	-	15-20	Not classified	Not applicable
Ethylene glycol	107-21-1	203-473-3	603-027-00-1	4-10	Acute Tox. 4 (H302)	No data available
Magenta pigment	**	-	-	<10	Not classified	No data available
1,2-Benzisothiazolin-3-one	2634-33-5	220-120-9	613-088-00-6	<0.03	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411)	Not applicable

Full text of H- and EUH-phrases: see section 16

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Revision Date: 17-Dec-2018
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Safety data sheet number: GCX-4M-1

Section 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms No information available

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available

5.3. Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Ensure adequate ventilation.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Product Name: GCX-4M-1, GCX-4M20-1, GCX-4M50-1, GCX-4M70-1

Revision Date: 17-Dec-2018
Issuing Date: 12-Oct-2018
Revision Number: 1.1
Safety data sheet number: GCX-4M-1

6.3. Methods and material for containment and cleaning up

- Methods for containment** Prevent further leakage or spillage if safe to do so.
- Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal.
- Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

- Reference to other sections** See section 8 for more information. See section 13 for more information.

Section 7: Handling and storage

7.1. Precautions for safe handling

- Advice on safe handling** Ensure adequate ventilation.
- General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

- Storage Conditions** Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

- Specific use(s)** Water based ink for inkjet printing machine

The information required is contained in this Material Safety Data Sheet.

Section 8: Exposure controls and personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	United Kingdom	France	Spain	Germany
Glycerol 56-81-5	-	TWA: 10 mg/m ³ STEL: 30 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 200 mg/m ³
Ethylene glycol 107-21-1	TWA 20 ppm TWA 52 mg/m ³ STEL 40 ppm STEL 104 mg/m ³ *	TWA: 10 mg/m ³ TWA: 20 ppm TWA: 52 mg/m ³ STEL: 40 ppm STEL: 104 mg/m ³ STEL: 30 mg/m ³ Sk*	TWA: 20 ppm TWA: 52 mg/m ³ STEL: 40 ppm STEL: 104 mg/m ³ *	TWA: 20 ppm TWA: 52 mg/m ³ STEL: 40 ppm STEL: 104 mg/m ³ via dérmica*	TWA: 10 ppm TWA: 26 mg/m ³ H*
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Glycerol 56-81-5	-	TWA: 10 mg/m ³	-	TWA: 20 mg/m ³	-

Product Name: GCX-4M-1, GCX-4M20-1, GCX-4M50-1, GCX-4M70-1

Revision Date: 17-Dec-2018

Issuing Date: 12-Oct-2018

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Safety data sheet number: GCX-4M-1

Ethylene glycol 107-21-1	TWA: 20 ppm TWA: 52 mg/m ³ STEL: 40 ppm STEL: 104 mg/m ³ pelle*	TWA: 20 ppm TWA: 52 mg/m ³ STEL: 40 ppm STEL: 104 mg/m ³ Ceiling: 100 mg/m ³ P*	TWA: 52 mg/m ³ TWA: 10 mg/m ³ STEL: 104 mg/m ³ H*	TWA: 20 ppm TWA: 50 mg/m ³ STEL: 40 ppm STEL: 100 mg/m ³ iho*	TWA: 10 ppm TWA: 26 mg/m ³ TWA: 10 mg/m ³ H*
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Glycerol 56-81-5	-	TWA: 50 mg/m ³ STEL: 100 mg/m ³	TWA: 10 mg/m ³	-	TWA: 10 mg/m ³ STEL: 30 mg/m ³
Ethylene glycol 107-21-1	TWA: 10 ppm TWA: 26 mg/m ³ STEL 20 ppm STEL 52 mg/m ³ H*	TWA: 10 ppm TWA: 26 mg/m ³ STEL: 20 ppm STEL: 52 mg/m ³ H*	STEL: 50 mg/m ³ TWA: 15 mg/m ³	TWA: 20 mg/m ³ TWA: 52 ppm TWA: 52 mg/m ³ STEL: 104 mg/m ³ STEL: 40 ppm H*	TWA: 10 mg/m ³ TWA: 20 ppm TWA: 52 mg/m ³ STEL: 40 ppm STEL: 104 mg/m ³ Sk*

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Appropriate engineering controls Good general ventilation should be sufficient under normal use.

Personal protective equipment Not normally required. For use other than in normal operating procedures (such as in the event of large spill), the following should be applied:

Eye/face protection Safety goggles.

Hand protection Protective gloves.

Skin and body protection Long sleeved clothing and long pants.

Respiratory protection In case of large spillages: Wear suitable respiratory protective equipment.

Environmental exposure controls Avoid release to the environment.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Liquid
Color magenta
Odor None.
Odor threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
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Product Name: GCX-4M-1, GCX-4M20-1, GCX-4M50-1, GCX-4M70-1

Revision Date: 17-Dec-2018
Issuing Date: 12-Oct-2018
Revision Number: 1.1
Safety data sheet number: GCX-4M-1

pH	8.0 - 9.5	
Melting point / freezing point	0 °C	
Boiling point / boiling range	100 °C	
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	1.1	(H ₂ O=1)
Water solubility	Soluble in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	<6.0 mPa s	@ 25°C
Explosive properties	No information available	No information available.
Oxidizing properties	No information available	

9.2. Other information

No information available

Section 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

None known based on information supplied

10.5. Incompatible materials

None known based on information supplied

10.6. Hazardous decomposition products

None known based on information supplied

Product Name: GCX-4M-1, GCX-4M20-1, GCX-4M50-1, GCX-4M70-1

Revision Date: 17-Dec-2018
 Issuing Date: 12-Oct-2018
 Revision Number: 1.1
 Safety data sheet number: GCX-4M-1

Section 11: Toxicological information

11.1. Information on toxicological effects

Product Information

Inhalation	No information available
Eye contact	No information available
Skin contact	No information available
Ingestion	No information available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	6,531.90 mg/kg
ATEmix (dermal)	52,476.67 mg/kg

Skin corrosion/irritation	No information available
Serious eye damage/eye irritation	No information available
Respiratory or skin sensitization	No information available
Germ cell mutagenicity	No information available
Carcinogenicity	Printing inks: IARC Classification: Group 3 (Non-classified Human Carcinogen) Ingredients of this product have not been classified as carcinogens according to IARC monographs, NTP and OSHA

Section 12: Ecological information

12.1. Toxicity

Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Glycerol	-	51 - 57: 96 h Oncorhynchus mykiss mL/L LC50 static	-	500: 24 h Daphnia magna mg/L EC50

Product Name: GCX-4M-1, GCX-4M20-1, GCX-4M50-1, GCX-4M70-1

Revision Date: 17-Dec-2018

Issuing Date: 12-Oct-2018

Revision Number: 1.1

Safety data sheet number: GCX-4M-1

Ethylene glycol	6500 - 13000: 96 h Pseudokirchneriella subcapitata mg/L EC50	41000: 96 h Oncorhynchus mykiss mg/L LC50 14 - 18: 96 h Oncorhynchus mykiss mL/L LC50 static 27540: 96 h Lepomis macrochirus mg/L LC50 static 40761: 96 h Oncorhynchus mykiss mg/L LC50 static 40000 - 60000: 96 h Pimephales promelas mg/L LC50 static 16000: 96 h Poecilia reticulata mg/L LC50 static	EC50 = 10000 mg/L 16 h EC50 = 620 mg/L 30 min EC50 = 620.0 mg/L 30 min	46300: 48 h Daphnia magna mg/L EC50
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12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

There is no data for this product.

Component Information

Chemical name	Partition coefficient
Glycerol	-1.76
Ethylene glycol	-1.93
1,2-Benzisothiazolin-3-one	1.3

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

No information available.

Section 13: Disposal considerations

13.1. Waste treatment methods

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Product Name: GCX-4M-1, GCX-4M20-1, GCX-4M50-1, GCX-4M70-1

Revision Date: 17-Dec-2018

Issuing Date: 12-Oct-2018

Revision Number: 1.1

Safety data sheet number: GCX-4M-1

Section 14: Transport information

IMDG

14.1 UN/ID no	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 Marine pollutant	Not applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1 UN/ID no	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

ADR

14.1 UN/ID no	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

IATA

14.1 UN/ID no	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

Section 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU-Regulations

No information available

National Regulations

15.2. Chemical safety assessment

No information available

Product Name: GCX-4M-1, GCX-4M20-1, GCX-4M50-1, GCX-4M70-1

Revision Date: 17-Dec-2018

Issuing Date: 12-Oct-2018

Revision Number: 1.1

Safety data sheet number: GCX-4M-1

Section 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H400 - Very toxic to aquatic life

H411 - Toxic to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorization:

TWA

TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

**

Trade secret

Key literature references and sources for data

No information available

Issuing Date 12-Oct-2018

Revision Note Section1

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information relates only to this product. It may not be valid, if used in combination with any other materials or in any other process, and it is based on our best knowledge as of the date of preparation (revision).